IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **Syuushi NOMURA et al.** Group Art Unit: **1723**

Application Number: **10/500,042** Examiner: **Tony Glen Soohoo**

Filed: **June 23, 2004** Confirmation Number: **5201**

For: **FIELD CONVERTER AND FLUID PROCESSING DEVICE USING THE CONVERTER**

Attorney Docket Number: **042449**
Customer Number: **38834**

DECLARATION UNDER 37 C.F.R. §1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Masaharu Takao a citizen of Japan, hereby declare and state the following:

1. I graduated from Kyushu University of Hukuoka-shi, Hukuoka, Japan in 1966. Then I studied at the graduate course of the University and received a doctor's degree in connection with the study on chemical engineering in 1983.

2. I am a research associate of Chemical Engineering Group, Department of Chemical Systems and Engineering, Graduate School of Engineering, Kyushu University, Japan.

3. I am the author of the following technical paper: "Property of Water Processed by νG7 and Concentrations of Elements Contained in Processed Water" which is attached hereto.

4. I have reviewed and am familiar with the above-identified patent application as well as the Official Action dated December 1, 2006, in the application. Further, I note that the fluid processing device "νG7" described in the technical paper is the same device of the fluid processing device that is set forth in the description under the subtitle of example 4 of the embodiment and Figs. 6-7.

5. I have reviewed and am familiar with the contents of cited reference, U. S. Patent Nos. 3,747,656 to Mortus cited in the Official Action in the above-identified application.

6. From the experimental results as set forth in the attached paper and those of the specification, I have concluded, among other things, that U. S. Patent Nos. 3,747,656 to Mortus does not teach or suggest the arrangement of material pieces as set forth in the application, nor the results obtained by this arrangement, nor would the arrangement be obvious to one of skill in the art based on the teachings of Mortus.

The undersigned declares that all statements made herein of his own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that willful false statements may jeopardize the validity of the application or any patent issued thereon.

M. Takao

Masaharu Takao, Ph.D.

Signed this 16 day of 2 (Month), 2007 (Year).

Property of Water Processed by ν G7 and Concentrations of Elements Contained in Processed Water

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1. Introduction

A technology of wave resonance with shape developed by Shushi Nomura[2,3] (named ν G7), patent pending, has been receiving attention, because it provides effects similar to the function of a carbon nano tube. Studies were performed on changes in property values of water and in the concentrations of the elements contained in processed tap water and distilled water, using the ν G7.

2. Experimental method

Proper experiment using the ν G7 and no- ν G7 experiment were performed with experiment systems shown in Photograph 1, using tap water and distilled water (manufactured by Kanto Chemical Co., Inc.). With a flow rate of 45 L/min, a pump ran for 6 to 7 seconds until a reservoir of 10 L was nearly halfway filled with water, i.e., approximately 5 L of water was stored in the reservoir. The concentrations of the elements contained in water were measured, after a few days from the running of the pump, with an ICP mass spectrometer at the Center of Advanced Instrumental Analysis, Kyushu University.

写真1 実験装置系(左:空運転系、右:νG7実験系)

Photograph 1 Experiment systems (left: No- ν G7 equipment, right: ν G7 equipment)

3. Experimental results and discussion

3.1 Property values

Table 1 shows comparison of property values of tap water processed between by the proper experiment and by the no- ν G7 experiment. The results showed no significant difference

in property values between the proper experiment and the no-νG7 experiment; however, in both tap water and distilled water, the oxidation-reduction potential in the proper experiment is slightly lower than that in the no-νG7 experiment, while the dissolved oxygen in the proper experiment is slightly higher than that in the no-νG7 experiment.

Table 1 Comparison of property values (tap water)

	Oxidation-reduction potential (ORP) (mV)	PH	Electrical Conductance (EC) (ms/cm)	Dissolved oxygen (mg/l)	Water temperature (℃)
No-νG7	565	7.23	0.250	8.82	16.9
Proper	561	7.24	0.250	8.88	16.9

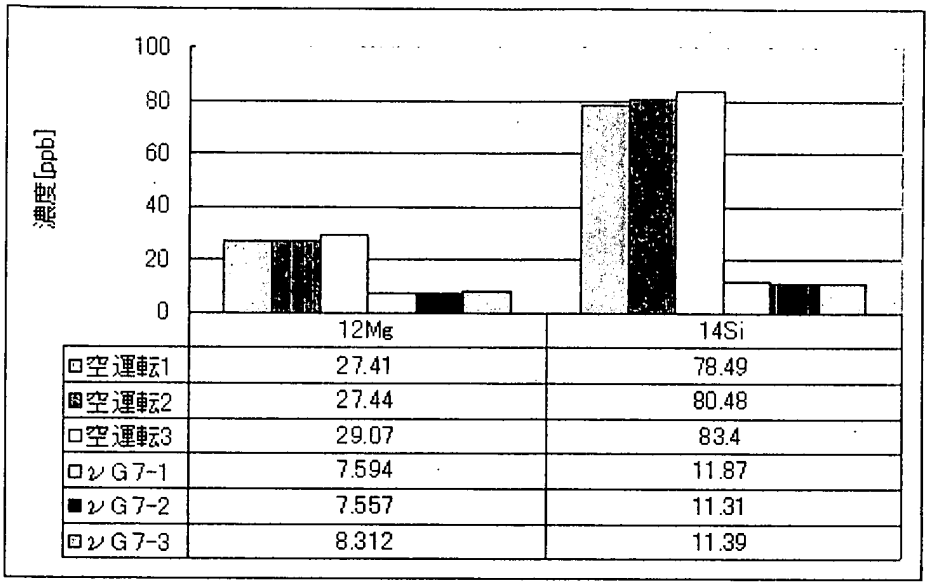
Table 2 Comparison of property values (distilled water)

	Oxidation-reduction potential (ORP) (mV)	PH	Electrical Conductance (EC) (ms/cm)	Dissolved oxygen (mg/l)	Water temperature (℃)
No-νG7	252	6.26	0	9.60	15.0
Proper	250	6.25	0	9.65	15.0

3.2 Element concentration

The proper experiment and the no-νG7 experiment were carried out three times. Figure 1 shows the concentrations of magnesium ($_{12}$Mg) and silicon ($_{14}$Si) contained in three samples each obtained the proper experiment or the no-νG7 experiment. In the figure, the concentrations of the elements are given in vertical axis (unit: ppb=10^{-9} g/g). The results showed high reproducibility.

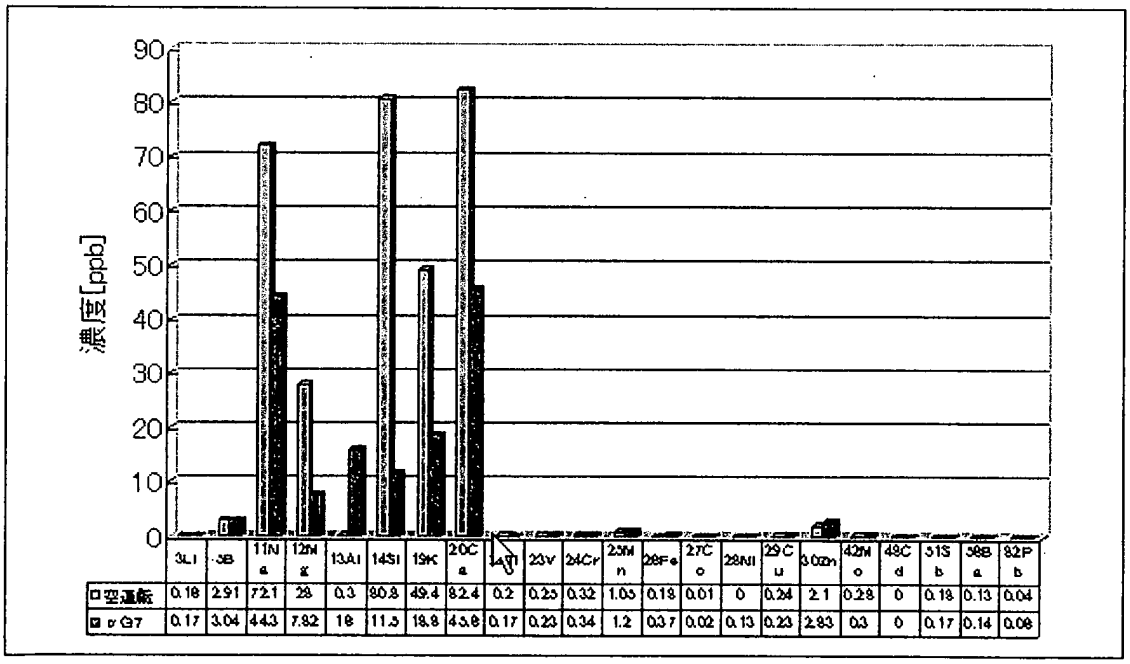
Figure 2 shows the concentrations of elements contained in processed distilled water of the proper experiment or the no-νG7 experiment. Major elements, such as sodium ($_{11}$Na), magnesium ($_{12}$Mg), silicon ($_{14}$Si), potassium ($_{19}$K) and calcium ($_{20}$Ca) had significantly lower concentration in the proper experiment than in the no-νG7 experiment, with the exception of aluminum ($_{13}$Al). This is the same tendency as obtained in the former experiment of HIET processed water[4]. In other words, it is thought that atomic conversion, most of which is nuclear fission, occurred, resulting in the elements contained being converted into hydrogen ($_{1}$H) and oxygen ($_{8}$O), which combined to form water molecule.



	12Mg	14Si
□空運転1	27.41	78.49
▨空運転2	27.44	80.48
□空運転3	29.07	83.4
□νG7-1	7.594	11.87
■νG7-2	7.557	11.31
□νG7-3	8.312	11.39

図1 実験の再現性

Figure 1 Reproducibility of experiments



	3Li	5B	11Na	12Mg	13Al	14Si	19K	20Ca	22Ti	23V	24Cr	25Mn	26Fe	27Co	28Ni	29Cu	30Zn	42Mo	48Cd	51Sb	56Ba	82Pb
□空運転	0.18	2.91	72.1	28	0.3	80.8	49.4	82.4	0.2	0.25	0.32	1.05	0.18	0.01	0	0.24	2.1	0.28	0	0.18	0.13	0.04
▨νG7	0.17	3.04	44.3	7.92	18	11.5	19.8	45.8	0.17	0.23	0.34	1.2	0.37	0.02	0.13	0.23	2.93	0.3	0	0.17	0.14	0.08

図2 空運転と本運転の処理蒸留水中の元素濃度変化

Figure 2 Difference in concentration of elements contained in processed distilled water between by the proper experiment and by the no-ν G7 experiment

3.3 Consideration on the basis of theory of quantized water

Masaharu Takao et al.[5-9] reviewed a theory of neutrino measurement obtained by a chlorine experiment and theoretically found a neutrino excited atom radical, which paved the way for a scientific basis of natural atom conversion. A theory of neutrino wave resonance with shape advocated by Masaharu Takao et al.[2,3,10,11] assumes that neutrinos generate in pairs via zero-point at the boundary region of imaginary and real space, and a right neutrino and an anti neutrino each collide with an atom by wave-resonating and collecting hexagonally and pentagonally, respectively, in proportion to the number of their figures.

In the νG7, a zero-point is formed at the central axis of each hexagon nut, and a right neutrino and an anti neutrino generate in pairs. Because a right neutrino wave-resonates with hexagon, it collects around stainless-steel hexagon nuts and collides with an iron atom ($_{26}Fe$) of constituent atoms. This generates an over-proton iron atom radical ($_{26}Fe^{*+}$) and an electron as shown in the following equation:

$$\nu + {}_{26}Fe \rightarrow {}_{26}Fe^{*+} + e^- \qquad (1)$$

This over-proton atom radical releases a proton, i.e., a hydrogen ion (H^+), after a certain period of time and then returns to an iron atom.

The right neutrino, which moves in water and reaches the hexagon nut, is likely to collide with a water molecule some time during its movement. When the right neutrino collides with a water molecule, there is a high probability of the right neutrino colliding with oxygen, which has a higher atomic number than hydrogen. In such a case, the oxygen ($_8O$) is separated from the water molecule (H_2O), resulting in hydrogen gas (H_2) being generated and an oxygen atom being converted into an over-proton oxygen atom radical to generate an electron as shown in the following equation:

$$\nu + H_2O \rightarrow H_2\uparrow + {}_8O^{*+} + e^- \qquad (2)$$

Higher dissolved oxygen as described in 3.1 above is estimated to be attributable to the over-proton oxygen atom in Equation (2), which turns to an oxygen atom after a certain period of time and as a result such two oxygen atoms combine to form oxygen gas (O_2).

In the processed water of the proper experiment, hydrogen gas bubbles were observed and detected, and dissolved hydrogen gas, which is not present in ordinary distilled water, was detected, because the hydrogen gas was generated as shown in Equation (2). Furthermore, bactericidal action observed is estimated to be attributable to the electrons generated in equations (1) and (2).

On the other hand, because an anti neutrino has no form that is subjected to resonance on its outside, it has a higher chance of colliding with an element contained in water with a 5-membered ring structure. In other words, while emitting a minute amount of gamma ray and neutron ray [8-9], an anti neutrino splits one element after another, resulting in the generation of hydrogen atoms ($_1H$) (an atom with the smallest atomic number), which combine with an oxygen atom produced by the split to form water molecule. It is thought that in this way the concentrations of elements contained in water, such as Mg and Si, decreases.

If an anti neutrino collides with an oxygen atom of water (H_2O), the following equation is derived:

$$\bar{\nu} + H_2O \rightarrow H_2\uparrow + {}_7N^{*-} + e^+ \qquad (3)$$

Also in this case, hydrogen gas (H_2) is generated, which corresponds to the detection of hydrogen gas. Furthermore, an over-electron nitrogen atom ($_7N^{*-}$) and a positron (e^+) are produced. If the positron generated collides with an orbital electron of an oxygen atom, gamma ray is emitted:

$${}_7N^{*-} + e^+ \rightarrow {}_7N + \gamma \text{ ray} \qquad (4)$$

In some cases, a right neutrino and an anti neutrino collide with a hydrogen atom of water as shown in the following equation[12], although such collision is less likely than the collision with an oxygen atom:

$$\bar{\nu} + H_2O \rightarrow [OH\cdot] + [H\cdot] \qquad (5)$$
$$\bar{\nu} + H_2O \rightarrow [OH\cdot] + n^{*-} + e^+ \qquad (6)$$

For a right neutrino, an unpaired electron radical [H·], so called in established chemistry, is generated. In the case of an anti neutrino, a hydrated radical ([OH·]), a over-electron neutron radical (n^{*-}), and a positron (e^+) are generated. If the positron generated collides immediately with an orbital electron of a hydrogen atom, the following equation is derived:

$$n^{*-} + e^+ \rightarrow n + \gamma \text{ ray} \qquad (7)$$

In other words, the surrounding elements are irradiated with a minute amount of gamma ray and neutron ray [8-9], and one element after another is split, resulting in the generation of hydrogen atoms ($_1H$) (an atom with the smallest atomic number), which combine with an oxygen atom ($_8O$) produced by the split to form water molecule. It is thought that in this

way the concentrations of the elements contained in water, such as Mg and Si, decreases.

4. Conclusions

The experiments of processing water using the νG7 showed that the oxidation-reduction potential of the water decreased slightly after the processing, that the dissolved oxygen increased slightly after the processing and that the concentrations of the major elements contained in water decreased by about half.

These facts, as well as the generation of hydrogen gas observed by other experiments, can be explained by the atomic conversion caused by the generation of neutrinos with the theory of quantized water and with the theory of neutrino wave resonance with shape.

Furthermore, production of negative and positive atomic radicals and right and anti electrons, generation of a minute amount of radiations good for health, and production of new active water molecules equivalent to the decreased concentrations of elements can be explained in the same way, i.e., by the atomic conversion caused by the generation of neutrinos with the theory of quantized water and with the theory of neutrino wave resonance with shape.

It is thought that the space inside the νG7 and the surrounding area of νG7 remarkably improve quality of fluid such as water and air circulated in it and activates them, resulting in the development of functions of the fluid such as sterilization, deodorization, and resuscitation of living bodies. Such functions have been recognized in practical or in empirical.

References

1) Shushi Nomura, International patent publication number WO03/055591A1 (Field converter and fluid processing device using the converter (2003)
2) Masaharu Takao, et al, "Consideration on Mechanism of Functional Development of Carbon Nano Tube based on Theory of Neutrino Wave Resonance with Shape," *The 70th meeting of the Society of Chemical Engineers, Japan,* Lecture summary, M316 (2005)
3) Masaharu Takao, et al, "Consideration on Mechanism of Functional Development of Carbon Nano Tube based on Theory of Neutrino Wave Resonance with Shape," *The 3rd meeting of Society of Nano Science and Technology, Japan,* Lecture summary, ps4-64 (2005)
4) The Japan Institute For Creative Energy, "Energy in 21st Century, Search for Cultivatable Far-infrared Activity "Water" and Ultraweak Vibration Energy – Search for Ultramicroscopic World below Ultra Micro and Nano Levels," Kodansha Shuppan Service Center (2002)
5) Masaharu Takao, "Quantized Water Theory," pp.1-449, CMF International University (2004)
6) Masaharu Takao and Hisatoki Komaki, et al, "Atomic Conversion in the Long-Term

Experiment of Calcium Hydroxide and Aluminum in Atmosphere," *Proceedings of the 10th APCChE Congress*, 4D-07, Oct. 17-24, Kitakyushu, Japan (2004)

7) Hisatoki Komaki and Masaharu Takao, et al, "Effect of Functional Waters on the Growth of Lactic Acid and Yeast and Its Mechanism," *Proceedings of the 10th APCChE Congress*, 3P-01-097, Oct. 17-24, Kitakyushu, Japan (2004)

8) Masaharu Takao, et al, "Consideration on Mechanism of Radioactive Breakdown of Elements on the Basis of Theory of Neutrino Excited Atom Radical" *The 70th meeting of the Society of Chemical Engineers, Japan*, Lecture summary, M313 (2005)

9) Masaharu Takao, et al, "Consideration on Mechanism of Isotope Production on the Basis of Theory of Neutrino Excited Atom Radical" *The 70th meeting of the Society of Chemical Engineers, Japan*, Lecture summary, M314 (2005)

10) Masaharu Takao, et al, "Consideration on Mechanism of Development of Fullerene Function on the Basis of Theory of Neutrino Wave Resonance with Shape," *The 70th meeting of the Society of Chemical Engineers, Japan*, Lecture summary, M315 (2005)

11) Masaharu Takao, et al, "Consideration on Mechanism of Development of Fullerene Function on the Basis of Theory of Neutrino Wave Resonance with Shape," *The 3rd meeting of Society of Nano Science and Technology, Japan*, Lecture summary, ps4-61 (2005)

12) Masaharu Takao, Ishi Iyono and Hisatsune Nashiki, "What is Difference between Neutrino Excited Atom Radicals and Radicals in Established Chemistry? – For Deeping of Theory of Neutrino Wave Resonance with Shape (5) -," http://www1.odn.ne.jp/shishakamo/bin5/bin05-06-29.htm(2005)